

other work has been done upon it, the sides being left in their natural forged shape. Six holes are to be drilled around the rim, as shown at *N*, and it will be seen that some care is necessary in the locating and clamping arrangements so that the resulting holes will be parallel with the axis of the collar. The jig body *C* is of cast iron, and is provided with a hardened and ground steel locating collar *B* on which the previously machined interior of the ring is located. The ring is placed on this steel collar resting against the single steel bushing *D* which is inserted in the body of the jig. Two other bushings *E* are arranged 120 degrees apart, and are provided with very light coil springs which force them up against the under side of the ring. The shoes *F* are then set up against the angular cut on these bushings by means of the screws *H*. The small set-screws *G* bear against the flattened side of the shoes and prevent them from turning. It will be noted that the angular cut on the body of the bushings is such as to prevent them from pushing down under the pressure of the drill.

The bushing plate *I* is located on the stud *J* and is prevented from turning by the pin *K* which fits the slot *L* in the body of the jig. Six bushings *N* are set into the plate at equal intervals. A nut *P* and a C-washer *O* provide for ready removal of the plate and draw it down solidly on the top of the locating ring *B*. The three pointed screws *M* are set into the work slightly to prevent any change in its location. It is well to note that it would have cost no more to machine one side of the work while it was being bored, thus obviating the necessity of the floating locating bushings.

Drill Jig with Floating Bushings and Locating Vees, - A somewhat peculiar condition is shown in Fig. 3, the work *A* being a bellcrank of ordinary construction such as is used in large quantities in automobile work. There are some instances on work of this kind when a variation of $\frac{1}{8}$ inch or more in the center-to-center distances is not considered of extreme importance, but it is quite important to have the holes as near the center of the bosses as possible. In order to counteract variations in the castings and still obtain holes which are central